

REMARKS

By this Amendment, claim 36 is amended to overcome the rejection under 35 U.S.C. 112, the method claims are amended to broaden their scope and clarify the recited subject matter and a new Abstract is submitted. Claims 1-48 are pending.

The Office Action rejected claims 1-48 under 35 U.S.C. 102(b) based on Sigler et al. (U.S. 5,717,830; hereafter "Sigler"). Applicants traverse the rejection because Sigler fails to disclose, teach or suggest all of the features recited in the rejected claims. For example, the cited prior art fails to disclose, teach or suggest the claimed packet mode group voice communication or the claimed operation of the group server.

SIGLER FAILS TO TEACH PACKET MODE GROUP VOICE COMMUNICATION

Sigler merely discloses a satellite trunked radio service system with a Closed User Group (CUG) arrangement that allows each member of the group to hear what any other user is saying, and to talk when needed, so that the system behaves like a radio multi-party line. The trunked system assigns frequencies to CUGs on a demand basis, so that one shared satellite demand period circuit per CUG is utilized.

However, Sigler fails to teach or suggest a packet mode group voice communication as recited in the pending claims. To the contrary, Sigler merely teaches a conventional vo-coded, voice communication in transmission frames over circuit switched network channels (see, for example, col. 13, lines 39-41 and 51-55).

The Office Action referred to Sigler's col. 3, line 2 as teaching a LAN/WAN; however, the referred to passage is describing background art and general architecture of a satellite system without suggestion or teaching that voice communication would be packet mode voice communication. The Office Action also referred to Sigler's col. 44 and col. 49 as teaching IP and TCP/IP; however, those passages merely provide a glossary of terminology with no relation to voice communication.

Accordingly, Sigler fails to teach or suggest a packet mode group voice communication as recited in the independent claims or their respective dependent claims.

SIGLER FAILS TO TEACH PROVIDING THE CLAIMED GROUP SERVER

The Office Action referred to Sigler's col. 3, lines 9-21 and col. 5, lines 49-64 as teaching the claimed group server on top of the communication system. However, the Network Operations Center (NOC) disclosed in Sigler merely provides an interface between

a satellite network system and the satellites for variety of operational reasons including message delivery and coordination. However, the NOC has nothing to do with group communication; moreover, the NOC is not a group server handling voice packets.

As explained in Sigler, a Group Controller (GC) is a resource controller that allocates and de-allocates circuits for the calls. The cooperation with the NOC is actually allocation of satellite bandwidth resources to the NOC. Thus, as explained at Sigler's col. 5, the GC is not a group server on top of the communication system and handling voice packets in a packet mode group voice communication.

Thus, Sigler fails to teach or suggest the claimed group server functionality of providing packet mode group voice communication, as recited in rejected independent claims and their respective dependent claims.

SIGLER FAILS TO TEACH PROVIDING GROUP SERVER INDIVIDUAL ADDRESSES

Sigler fails to teach or suggest providing the group server with individual addresses of group members in at least one group communication group. The Office Action asserted that the Closed User Group (CUG) referred to in Sigler's cols. 6 and 16 provide that feature. However, those passages merely teach that closed user groups can be set up. Nevertheless, Sigler fails to teach or suggest that a group server would be provided with individual addresses of group members in at least one group communication group.

Thus, Sigler fails to teach or suggest the claimed provision of the group server with individual addresses of group members in at least one group communication group, as recited in the rejected independent claims and their respective dependent claims.

SIGLER FAILS TO TEACH SENDING OR FORWARDING VOICE PACKETS

Sigler further fails to teach sending voice packets from one of said group members to said group server, each voice packet being addressed to said at least one group, forwarding said voice packets individually to each receiving one of said group members on the basis of said individual addresses.

The Office Action referred to Sigler's col. 15, lines 57-62, as allegedly teaching that each member can hear one member in the group. However, in Sigler, circuit switched connections are established between the group members; thus, there is no packet mode voice communication. To the contrary, in Sigler, no further addressing is contemplated or needed for routing the voice data from the sender to the receiver over the circuit switched connection.

Further, in Sigler, the voice communication is not sent to the GC, which receives and sends only signaling messages.

Thus, Sigler fails to teach or suggest the claimed sending or forwarding of voice packets, as recited in the rejected independent claims and their respective dependent claims.

Accordingly, Applicants submit that all of the independent claims 1, 3, 8, 11, 20, 21, 23, 31, 32, 33, 36 and 39, and their respective dependent claims, are patentable over Sigler.

INDEPENDENT CLAIM 3

Moreover, with reference to independent claim 3, Applicants submit that the claimed subject matter is patentable over Sigler for the additional reason that Sigler fails to teach or suggest starting a speech item in the group by sending a leader packet from one of the group members to the group server over the individual logical connection recreated from said one of said group members to said group server by means of outband signaling, each leader packet containing the identifier of the respective group member.

To the contrary, Sigler merely teaches to set up one shared satellite demand period circuit (i.e., a circuit switched connection) per CUG rather than using one switched circuit per mobile user. Thus, Sigler expressly teaches away from creating an individual logical connection from each group member to the group server. (See, e.g., col. 7, lines 2-10; col. 16, lines 9-17 and 50-52). Thus, in Sigler, no leader packet is sent over such individual logical connection in order to start a speech item in a group.

It must be understood that, in Sigler, depressing the PTT switch when no frequency channel is assigned to the net group results in transmission of net radio access request with the intent of requesting the assignment of a channel to the net group, subject to the availability of resources. Depressing the PTT switch while the net group is active and the speaker ID is vacant results in transmission of a PTT signalling unit on the MET-C signalling channel to request access to the inbound circuit switched channel for a net radio call (see, e.g. col. 19, lines 37-45). The PTT signaling unit is not a leader packet; rather, it is a signaling message transmitted over a MET_C signaling channel.

SIGLER FAILS TO TEACH REJECTION OR GRANT
OF THE STARTED SPEECH ITEM

Sigler further fails to teach that the group server, upon receiving the leader packet, either i) rejects the started speech item, or ii) grants the started speech item to the one group member and forwards the leader packet and subsequent voice packet individually to each receiving one of the group members in the group based on the individual addresses.

In Sigler, a PTT signalling unit is sent rather than a leader packet. Further, the PTT signaling unit is not sent to the group controller.

In fact, in Sigler, the GC is only involved with the assignment of a circuit switched channel to the net group; however, the GC is not involved with granting the speech items to members in the net group. That task is handled by the mobile terminals themselves by means of the MET call supervision procedure. A mobile terminal monitors the MET-C signaling channel so as to determine whether another group member has reserved the communication channel for speaking. If the user presses the PTT button, and the communication channel is not reserved by another group member, the mobile terminal transmits a PTT_SU signaling unit on the MET-C signaling channel so that it can be detected by other members. This arrangement is possible because of the shared circuit switched connection between the group members.

Thus, Sigler fails to teach any group server or other network device that rejects or grants the speech items started by a leader packet because Sigler teaches against the present invention by teaching that speech items on the shared circuit switched connection are controlled by the mobile terminals themselves.

SIGLER FAILS TO TEACH FORWARDING THE LEADER PACKET

Sigler fails to teach that the group controller forwards such leader packet and subsequent voice packet individually to each receiving one of the group members. The PTT_SU is not sent to the group controller, and the PTT_SU is not forwarded to other members in the group. The net radio access request with the intent of requesting the assignment of a channel to the net group is sent to the group controller, but not forwarded to other members of the net group. Instead, a message informing the net group of a specific frequency allocated for the net group is broadcasted (see col. 17, lines 19-24, for example).

On the above grounds, claim 3 is not anticipated by Sigler et al.

INDEPENDENT CLAIM 5

Moreover, with reference to independent claim 5, Applicants submit that its subject matter is patentable over Sigler for the additional reason that Sigler fails to teach or suggest a group server that sets a first timer to measure a predetermined idle period in response to granting a speech item to one group member, resets the first timer each time a voice packet is received from said one of said group members to said group server, and ending said granted speech item if said first timer expires indicating that said predetermined idle period has elapsed from said granted or from last reception of a voice packet from said one group member.

On the contrary, in Sigler, the group control does not control the speech items or receive voice information but Sigler explicitly teaches to control the speech items by the mobile terminals themselves. Therefore, independent claim 5 and its dependent claims are patentable over Sigler.

INDEPENDENT CLAIM 8

With regards to claim 8, Sigler fails to teach a packet mode group voice communication, as already discussed above, and further fails to teach a user specific server for managing traffic streams addressed to a user who is active in at least one group communication group or in a one-to-one communication. In Sigler, there is no teaching or suggestion of a network device providing filtering of voice packet streams related to two or more group or one-to-one communications or one user. Thus, independent claim 8 and its dependent claims are patentable over Sigler.

CONCLUSION

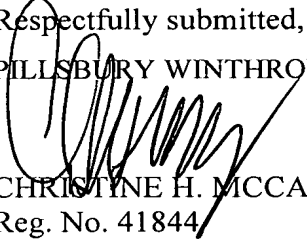
Thus, for the reasons identified above, independent claims 1, 3, 5, 8, 11, 20, 21, 23, 31, 32, 33, 36 and 39 are patentable over Sigler. All objections and rejections having been addressed, Applicants request issuance of a notice of allowance indicating the allowability of the pending claims. However, if anything further is necessary to place the application in condition for allowance, Applicants request that the Examiner telephone the undersigned Applicants' representative at the number listed below.

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Respectfully submitted,

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